

SOLID STATE LIGHT DEVICE

ABSTRACT

5 A photon emitting device comprises a plurality of solid state radiation sources to generate radiation. The solid state radiation sources can be disposed in an array pattern. Optical concentrators, arranged in a corresponding array pattern, receive radiation from corresponding solid state radiation sources. The concentrated radiation is received by a plurality of optical waveguides, also arranged in a corresponding array pattern. Each optical waveguide includes a first end to receive the radiation and a second end to output the radiation. A support structure is provided to stabilize the plurality of optical waveguides between the first and second ends. The photon emitting device can provide a replacement for a discharge lamp device in various applications including road illumination, spot lighting, back lighting, image projection and radiation activated curing.

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